IV&V Applicability to Shared Services

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The reason for engaging independent verification and validation (IV&V) is to minimize risk, ensure quality, and ultimately ensure successful system implementation the first time, thereby investing your resources most wisely. To what extent is IV&V applicable to the adoption and use of shared services? The tendency is to presume that the system or COTS product at the core of the shared services offering has been properly and thoroughly tested well before being offered as a shared service. "Since we don't apply IV&V to standard office automation products, why should we do that for our financial management system that we've procured as a shared service?"

Sometimes it may be assumed that early adopters of the shared service already ensured the quality and that should suffice for subsequent adopters. Shared service offerings are typically highly configurable or have many optional functions or features, so different parts of the system may or may not be heavily used in particular operational environments. As such, the shared service may not have been tested by the vendor using your organization's unique mission requirements. You could be an unwitting trailblazer.

Throughout the service life of the shared service, as well as the development, operations, maintenance, and enhancement activities of the systems dependent on the shared service, it is important to verify and validate the services against the mission-specific requirements. IV&V acts as the technical proponent for the business unit or mission area dependent on the shared service.

Through this lens, the following high-level best practices can be observed while conducting IV&V in a shared services environment:

Involve IV&V early. The IV&V effort should include first validating requirements (functional, technical, etc.) of the business unit in order to establish the frame of reference for IV&V activities. In fact, IV&V can do this before the procurement of shared services and support the business unit during selection of the provider, implementation, and in an ongoing, interactive capacity during deployment, operations, and systems evolution.

Independence is important. While the shared service provider has most likely conducted quality assurance and testing and the system integrator chosen by the procuring agency probably tested their work as well, the "independent" in IV&V is an important consideration to ensure success through unbiased evaluation of unique configurations. Of course, there is a spectrum in the degree of independence. IEEE Standard 1012-2012 offers guidance on identifying that range to help the organization choose appropriately.

Focus on your organizational requirements. It can be challenging for a long-term legacy system user to switch to the new shared service due to an insider's perspective: "The new system doesn't do X which the legacy system does, so there is a gap." IV&V can help separate needs from wants and keep the focus on meeting organizational requirements instead of indiscriminately comparing the shared service to the legacy system.

> **How We Define These Terms**
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> **IV&V**: A series of planned activities during each phase of the project lifecycle that are designed to result in an objective assessment of the work products and processes developed in that phase. Such activities may include but are not limited to: requirements validation, testing, documentation review, code and design review, technical studies and analyses, etc.
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> **Shared Services**: In this context, we are referring to shared services as the application services provided for functions such as financial management systems, eTravel, CRM, human resources (pay & personnel), etc.

Leverage the value of IV&V. Perhaps the most critical best practice besides including IV&V as part of your shared services strategy is to make IV&V more than a checklist item. Select a provider with experience in IV&V for your domain and shared services in order to get true value from the team's expertise.

For more information, please contact the ACT-IAC C&T SIG IV&V Committee at act-iac@actiac.org.

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